IN THE CLAIMS

1. *(Amended)* A catalytic converter and resonator combination device for use in an exhaust system of an internal combustion engine, whereby said device being disposed between an exhaust manifold and an exhaust tail pipe or an exhaust muffler, said device comprising:

a canister for installing in the exhaust system of [an] the internal combustion engine, [with] said canister having a longitudinal axis, and including an inlet end, a forward portion adjacent said inlet end, a rearward portion adjacent said forward portion, an outlet end adjacent said rearward portion, a forward inner diameter, and a rearward inner diameter;

at least one catalytic converter element installed within said forward portion of said canister, with said catalytic converter element having an outer diameter and including a substrate having a plurality of longitudinal passages therethrough, with each of said passages being defined by a plurality of substrate walls, said passages being parallel with the longitudinal axis of said canister;

a resonator element installed within said rearward portion of said canister, with said resonator element having a hollow core, a forward end, a rearward end, an outer diameter, and a plurality of sound attenuating perforations formed radially therethrough;

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said outer diameter of said resonator element being smaller than said rearward inner diameter of said canister, and defining a sound attenuating plenum therebetween; and

said inlet end of said canister, said [plurality of passages of said] catalytic converter element, said hollow core of said resonator element, and said outlet end of said canister all being [axially] aligned <u>along said longitudinal axis</u> with one another for providing straight through[, low restriction, free] flow of engine exhaust therethrough.

8. *(Amended)* The catalytic converter and resonator combination according to claim 1, wherein said substrate walls of said at least one catalytic converter element [are thin, for providing a large] <u>provide a</u> surface area to substrate volume ratio for accelerating heat transfer to said substrate walls, for correspondingly accelerating the catalytic reaction within said catalytic converter element.

9. *(Amended)* The catalytic converter and resonator combination according to claim 1, wherein said substrate of said at least one catalytic converter element is formed of material selected from the group consisting of ceramics and [Dow-Corning XT] <u>cordierite ceramics</u>.

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11. *(Amended)* A catalytic converter and resonator combination device for use in an exhaust system of an internal combustion engine, whereby said device being disposed between an exhaust manifold and an exhaust tail pipe or an exhaust muffler, said device comprising:

a canister for installing in the exhaust system of [an] the internal combustion engine, [with] said canister having a longitudinal axis, and including a pair of inlets, a forward portion adjacent said inlets, a rearward portion adjacent said forward portion, a pair of outlets adjacent said rearward portion, a forward inner circumference, and a rearward inner [thickness] diameter;

at least one catalytic converter element installed within said forward portion of said canister, with said catalytic converter element having an outer circumference and including a substrate having a plurality of longitudinal passages therethrough, with each of said passages being defined by a plurality of substrate walls, said passages being parallel with the longitudinal axis of said canister;

a first and a second resonator element installed within said rearward portion of said canister, with each said resonator element having a hollow core, a forward end, a rearward end, an outer [width] diameter, and a plurality of sound attenuating perforations

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therethrough, with each said resonator element being disposed alongside one another;

said outer [width] diameter of each said resonator element being smaller than said rearward inner [thickness] diameter of said canister, and defining a sound attenuating plenum therebetween; and

said inlets of said canister, said [plurality of passages of said] catalytic converter element, said hollow core of each said resonator element, and said outlets of said canister all being axially parallel to one another and said longitudinal axis for providing straight through[, low restriction, free] flow of engine exhaust therethrough.

12. *(Amended)* The catalytic converter and resonator combination according to claim 11, wherein [at least said forward portion and said rearward portion of] said canister comprises a monolithic tubular shell.

18. *(Amended)* The catalytic converter and resonator combination according to claim 11, wherein said substrate walls of said at least one catalytic converter element [are thin, for providing a large] provide a surface area to substrate volume ratio for accelerating heat transfer to said substrate walls, for correspondingly accelerating the catalytic reaction within said catalytic converter element.

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19. *(Amended)* The catalytic converter and resonator combination according to claim 11, wherein said substrate of said at least one catalytic converter element is formed of material selected from the group consisting of ceramics and [Dow-Corning XT] cordierite ceramics.

21. *(Amended)* A catalytic converter and resonator combination device for use in an exhaust system of an internal combustion engine, whereby said device being disposed between an exhaust manifold and an exhaust tail pipe or an exhaust muffler, said device comprising:

a canister for installing in the exhaust system of [an] the internal combustion engine, [with] said canister having a longitudinal axis, and including at least one inlet, a forward portion adjacent said at least one inlet, a rearward portion adjacent said forward portion, at least one outlet adjacent said rearward portion, a forward inner circumference, and a rearward inner [thickness] diameter;

at least one catalytic converter element installed within said forward portion of said canister, with said catalytic converter element having an outer circumference and including a substrate having a plurality of longitudinal passages therethrough, with each of said passages being defined by a plurality of substrate walls,

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said passages being parallel with the longitudinal axis of said canister;

at least one resonator element installed within said rearward portion of said canister, with said at least one resonator element having a hollow core, a forward portion, a rearward portion, an outer diameter, and a plurality of sound attenuating perforations formed radially through said forward portion thereof, with said rearward portion thereof being devoid of perforations therethrough;

said outer diameter of said at least one resonator element being smaller than said rearward inner [thickness] diameter of said canister, and defining a sound attenuating plenum therebetween;

said at least one inlet of said canister, said [plurality of passages of said] at least one catalytic converter element, said hollow core of said at least one resonator element, and said at least one outlet end of said canister all being [axially] aligned along said longitudinal axis with one another for providing straight through[, low restriction, free] flow of engine exhaust therethrough;

said rearward portion of said at least one resonator element extending outwardly beyond said at least one outlet of said canister; and

said at least one resonator element being selectively axially positionable within said canister for selectively attenuating

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exhaust sound frequencies in a predetermined sound frequency range [as desired].

Claim ~~24~~, ~~line 2,~~ delete "end" and insert --portion--.

28. *(Amended)* The catalytic converter and resonator combination according to claim 21, wherein said substrate walls of said at least one catalytic converter element [are thin, for providing a large] <u>provide a</u> surface area to substrate volume ratio for accelerating heat transfer to said substrate walls, for correspondingly accelerating the catalytic reaction within said catalytic converter element.

29. *(Amended)* The catalytic converter and resonator combination according to claim 21, wherein said substrate of said at least one catalytic converter element is formed of material selected from the group consisting of ceramics and [Dow-Corning XT] <u>cordierite ceramics</u>.

Claim 30, line 7, delete "end" and insert --portion--.

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